BC3 serves as training site

Article published October 13, 2012
By Ed Biller

BUTLER TWP — “The Smart Place to Start?” quipped Butler County Community College Professor Chris Calhoun on Thursday. “How about a good place to land?”

Calhoun was referring to a pair of U.S. Army Sikorsky UH-60 Black Hawk helicopters that landed on the BC3 baseball field Thursday for the first peak hoist rescue training in Pennsylvania, which involved the helicopters dropping rescuers onto the fire training tower at BC3’s Public Safety Training Center, then retrieving them.

Pennsylvania is becoming just the fifth state in the nation to implement a helicopter-based water rescue team; Helicopter Air Rescue Training (HART) is a joint civilian/military effort between the Pennsylvania Fish and Boat Commission and the Pennsylvania National Guard, overseen by the Pennsylvania Emergency Management Agency.

According to Scott Grahn, a water rescue instructor for the Pennsylvania Fish and Boat Commission and the senior strike team leader for HART, the unit currently consists of four, five-man teams for training purposes, but will be a cohesive, 20-man team once all training is complete, with room for expansion.

“As of right now, if PEMA were to request an asset, we would have two teams up and running. To get the other two teams prepared, we will take about another two months. Some missions will be restricted until the rest of the training is completed,” Grahn said.

The Smart Place to Start

Butler County Community College is set to be a big part of HART's preparation and training, and Thursday's exercise, Grahn said, was particularly challenging due to the four-story fire training tower's rooftop railing and raised stairwell.
“Most of our training has been done on boats or normal land operations. When you hoist people onto rooftops, you have to function as one unit: the helicopter has to remain in position, the hoist operator has to make sure he is directly over the object or within close proximity and, when the rescuer is coming out of the helicopter and lowering down, they must control their sway (back-and-forth movement) and their spin to land on that small an object,” Grahn said.

“That's why we chose BC3, not only to simulate a building surrounded by water, but to contend with the railing around the roof and the small roof surface itself. If we get proficient in doing that, that's what makes the team better. We had winds of 17 mph, which is great, because that simulates actual conditions in which we would be working.”

Of the two helicopters that landed on BC3’s baseball field at about 4 p.m. Thursday, one was used as a command and control unit, remaining on the ground throughout the exercise, while the other served as the training helicopter.

During the exercise, the helicopter carried a pilot and copilot, as well as a four- to six-person HART team. In an emergency, the 64-foot helicopter can carry up to a dozen people. Team members wore flight suits and harnesses with a built-in flotation device, though their equipment varies by the type of rescue.

The helicopter repeated the same drill several times, circling the rescue tower then hovering about 40 feet above its roof, with team members opening doors on each side of the chopper to check for hazards, then the hoist operator, his feet dangling from the side of the chopper, would begin lowering the rescuer. Descending rescuers threw out one arm to control their spin and sway which, if unchecked, can render the rescuer dizzy or unconscious, in addition to the danger of slamming into a structure.

Calhoun, who leads water rescue courses for the state Fish and Boat Commission, in addition to his duties as a BC3 humanities and social sciences professor, bumped slightly off the tower railing on his descent. Once each rescuer hit the roof, he detached the hoist cable from his harness and allowed it to touch the ground, dissipating the static electricity generated by the helicopter above, a process that was repeated when the cable was lowered to retrieve the rescuer.

“You have to ground the cable by allowing it to touch the structure (before you winch it back or retrieve it) or the static electricity will zap you, and it can jolt you pretty good,” said Joel Koricich, strike team leader for the Red training team and a PA HART spokesman.

The hurricane-force winds produced by the chopper's rotors, called rotor wash, are something else the rescuers and winch operators must contend with, requiring the use of ear and eye protection to function.

“If you're not ready, it will knock you over when you're under the aircraft,” Koricich said.

After ascending back to the helicopter, each rescuer grabbed the hoist operator's feet when he arrived at the top, stopping any spin or sway, which Koricich said becomes harder to control the closer one is to the helicopter.
Koricich said Thursday's training was part of a progressive regimen and did not include a 'victim' in its scenarios.

“It will progress not only into victim pickup or rescuer pickup, but the use of different hoist devices,” he said, referring to cinch and strop collars, as well as Bauman bags, a type of hoist stretcher.

Koricich and Grahn also said BC3 should feature prominently in future training.

“It's difficult to find a facility where you can land a Black Hawk pretty much any time,” Koricich said.

Grahn said the tanker truck at BC3's Public Safety Training Center might be the team's next target.

“There are numerous types of rescues we will be doing: treetop rescues, rescues off the top of vehicles, etc.,” he said. “BC3 offers a wide variety of options.”

**HART**

Research and planning for HART began in 2006 but, partly due to a pair of deployments of the National Guard unit supplying the helicopters to Kosovo between 2006 and 2011, actual implementation of the HART teams was delayed until this year.

The supporting National Guard unit is the Johnstown-based 169th Aviation Division, as well as several Guard members from Fort Indiantown Gap, the Pennsylvania National Guard's joint headquarters.

“We have two aircraft assigned to HART. Their mission is as a medical evacuation unit, but we have a good number of (civilian) medical evacuation helicopters in Pennsylvania. So, they do other missions, such as search and rescue. There are no other helicopters in Pennsylvania with (rescue) hoisting capabilities, other than the National Guard,” Grahn said.

“That's what makes it unique. We used to have to call helicopters up from Maryland.” Only four other states have helicopter water rescue capability: Texas, North Carolina, Maryland and California.
Grahn said HART studied those programs extensively and chose members who were well-versed in water rescue.

Helicopter rescue is a last resort after self-rescue, either with a pole or life preserver, as well as boat rescue and even a rescuer swimming to the victim, have failed or been ruled out for safety reasons, Koricich said.

“Generally, if we get called out, it's a major incident,” he said, adding that the majority of natural disasters in Pennsylvania involve flooding.

And, thanks in part to BC3, rescuers will be prepared to deal with whatever comes downstream.

“You have to give people full confidence in you as a rescuer. You have to be able to take control and explain to (victims) what you are doing,” Grahn said.

“Planning saves time, money and lives.”